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COSMETIC PRODUCT CONTAINER AND METHOD FOR MAKING IT

## BACKGROUND OF THE INVENTION

The present invention relates to a cosmetic product container and a method for making it.

5 As is known, cosmetic products such as creams, of the paste or fluid type, solar oils, bath products and so on, are conventionally contained in a lot of different containers such as jars, small bottles or tubes, made of a lot of different  
10 materials, such as plastic materials or glass.

Prior cosmetic product containers, however, are conventionally made by combining two or more distinct pieces, and, in particular, they comprise a container body and a respective covering element,  
15 which is frequently threaded on the body of the container.

This approach, in which two or more discrete elements must be coupled to one another to provide a finished container, is not considered as  
20 satisfactory, from an economic standpoint, since it would be desirable to reduce as far as possible the making and assembling cost of the above mentioned containers, before filling said containers with the cosmetic product to be held therein.

25 In this connection it should be pointed out that the above mentioned problems are further compounded in all the cases in which, because of the nature of the cosmetic product to be handled, it is necessary to also provide an intermediate element,  
30 including a throughgoing hole, for providing a metered delivery of the liquid or semi-liquid

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cosmetic products, which further complicates the container construction.

From the above, it should be apparent that it would be desirable to provide a cosmetic product container allowing to solve the above mentioned problems.

#### SUMMARY OF THE INVENTION

Accordingly, the aim of the present invention is to provide a cosmetic product container which is made as a single piece, both in a single component embodiment and in a bi-component embodiment thereof.

The above mentioned aim, as well as further objects which will become more apparent hereinafter, are achieved by the present invention which specifically provides a cosmetic product container comprising a container body for a cosmetic product and at least a covering element, characterized in that said container body and covering element are made as a single-piece by injecting at least a component and in that said container body and covering element are coupled to one another by a hinge.

According to a preferred embodiment of the present invention, the covering element is provided with a gasket, made of a material different from that forming the assembly constituted by the covering element and container body.

According to another preferred embodiment of the present invention, the gasket and covering element and container body assembly are made by a bi-injection of two different components.

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According to another preferred embodiment of the present invention, the container body is open at the end portion thereof opposite to the covering element, thereby said container body can be easily coupled to a bottle or tube.

In this connection it should be pointed out that an opened configuration of the container body would allow the bottle or tube associated therewith to be easily made by a blow molding operation.

According to a further preferred embodiment of the present invention, between the container body and covering element a perforated flat element is arranged, in turn coupled to said container body by a second hinge, the assembly being made as a single piece by injecting either a single component or two different components.

Alternately, the container body is closed, at the end portion thereof opposite to said covering element, thereby providing a jar configuration.

The present invention relates moreover to a method for making a cosmetic product vessel, characterized in that said method comprises at least an injection step for injecting at least a component to provide an assembly including a container body and at least a covering element, coupled to one another by a hinge.

According to a preferred embodiment of the present invention, the method also comprises a second blow molding step, to define the configuration of the container body.

Finally, the injection step can be made by using two different components, which are processed by a bi-injection apparatus.

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**BRIEF DESCRIPTION OF THE DRAWINGS**

Further advantages and characteristics of the present invention will become more apparent hereinafter from the following detailed disclosure, provided by way of an illustrative, but not limitative example, with reference to the accompanying drawings, where:

Figure 1 is a cross-sectional view of a cream jar according to a first embodiment of the present invention, in an open configuration thereof;

Figure 2 is a cross-sectional view illustrating the cream jar of Figure 1, in a closed configuration or condition thereof;

Figure 3 is a side view of the cream jar shown in Figures 1-2, in an open configuration or condition thereof;

Figure 4 is an axonometric view illustrating a capsule which can be coupled to containers of vial or tube configuration, according to another embodiment of the present invention;

Figure 5 is a further axonometric view of a capsule coupled to a vial or small bottle according to a modified embodiment of the present invention;

Figure 6 is a cross-sectional view illustrating a detail showing a possible embodiment of a hinge according to the present invention;

Figure 7 is a partially cross-sectioned view illustrating the capsule of Figure 5, in an open condition thereof;

Figure 8 is a further partially cross-sectioned view illustrating the capsule of Figure 5, in a closed condition thereof;

Figure 9 is yet another partially cross-

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sectioned view illustrating the capsule of Figure 5, coupled to a tube, in a closed condition thereof; and

Figure 10 is a side view of a tube provided with a capsule according to the present invention.

#### DESCRIPTION OF THE PREFERRED EMBODIMENTS

In the following disclosure, reference will be made to some preferred embodiments of the present invention, which are illustrated, by way of a non limitative example for disclosing different possible variations of the invention.

A first exemplary embodiment of the cosmetic product container according to the present invention is shown in Figures 1-3 and is generally indicated by the reference number 1.

According to this embodiment, the cosmetic product container comprises a container body 2, for holding therein a set cosmetic product, and a covering element 5.

The container body 2 and covering element 5 are made in a single piece, by injecting a first component, and are coupled to one another by a hinge 4.

Moreover, to the covering element 5 a gasket or seal 3 is applied, said gasket being made of a material different from that of the assembly constituted by the covering element 5 and container body 2.

In this connection, it should be pointed out that the gasket 3 and the covering element 5 and container body 2 can be made by bi-injecting two different components.

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As shown, the container body 2 is closed at the end thereof opposite to said covering element 5, so as to provide a jar 1.

A second embodiment of the invention is illustrated in Figure 4 and generally indicated by the reference number 10; in this embodiment, the container body 12 is open at the end thereof opposite to the covering element 15, in turn provided with a gasket 13.

Thus, the container body 12 can be coupled to a vial or bottle 30 or to a tube 40.

Also in this embodiment, the container body 12 and covering element 15 are made in a single piece by injecting a first single component and are coupled to one another by a hinge 14.

According to this embodiment, the open container body 12 would allow to provide, by a blow-molding operation, the vial or bottle 30 associated therewith, as is shown in Figure 5, or a tube 40, as is shown in Figures 9-10.

According to a further embodiment of the invention, as shown in Figures 5 and 7-9, and generally indicated by the reference number 20, between the container body 22 and covering element 25 is arranged a flat element 26, provided with a throughgoing hole 28 and a gasket 27.

Said flat element 26 is in turn coupled to the container body 22 by a hinge 41, the container body 22 and covering element 25 being coupled by a hinge 24.

Also in this embodiment, the device 20 is made as a single piece, by injecting a single component or, possibly, two different components, in

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the case in which the disclosed gasket elements must be made.

The present invention further relates to a method for making cosmetic product containers.

5           At first, the cream jars 1 can be made starting from a single component, by using an injection apparatus, or, if a gasket 3 or other different material must be made, then they can be made starting from two different components, by using  
10 a bi-injection apparatus.

In the case of the vials 30 or of the tubes 40, they can be made by a making method comprising a first injection step and a second blowing step.

15           The first injection step can be carried out by a single component or by a bi-component material, as already disclosed, and depending on the result to be obtained with reference to the materials forming the finished products.

20           The blowing step will define the type of the finished product, which can comprise either a vial 30 or a tube 40.

25           This would mean that, with a same injection pre-mold it would be possible to make, by blowing, different types of vials or bottles 30 and/or tubes 40 having the same volume or slightly different volumes.

From the above disclosure it should be apparent that the invention fully achieves the intended objects.

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